

EMISSION UNITS TABLE - FACILITY
ATTACHMENT 1 TO FORM S-1

POWER PLANT AND WELLFIELD FUGITIVE SOURCES

Reference System F-1.

Power Plant - Steam, Turbine-Generator, and Condensate Systems: This system has the potential for fugitive H₂S emissions through leaking seals, flanges, valves, and other fugitive emission points. Sensors with alarms set for 10 ppm are located on each turbine/generator unit. The alarms, which are activated in the control room, immediately alert personnel of fugitive H₂S emissions so that corrective action can be taken.

Reference System F-2.

Power Plant - Non-Condensable Gas (NCG) System: This system has the potential for fugitive H₂S emissions through leaking seals, flanges, valves, and other fugitive emission points. Sensors with alarms set for 5 ppm are located strategically throughout the system. The alarms, which are activated in the control room, immediately alert personnel of fugitive H₂S emissions so that corrective action can be taken.

Reference System F-4.

Pad A Wellfield: KS-9 and KS-10 Production Wells, KS-1A, KS-11 and KS-13 Injection Wells, and Associated System: These wells and associated equipment have the potential for fugitive H₂S emissions. Sensors are strategically located throughout the wellfield. H₂S emissions during maintenance operations are abated using a portable H₂S abatement vessel.

Reference System F-5.

Pad E Wellfield: KS-3 Injection Well, KS-5, KS-6 and KS-14 Production Wells and Associated System: These wells and associated equipment have the potential for fugitive H₂S emissions. H₂S emissions during maintenance operations are abated using a portable H₂S abatement vessel.

Reference System F-7

Pad B Wellfield: KS-15 Production Wells and Associated System: These wells and associated equipment have the potential for fugitive H₂S emissions. H₂S emissions during maintenance operations are abated using a portable H₂S abatement vessel.

ATTACHMENT 2 TO FORM S-1
EMISSION UNITS TABLE - FACILITY UPSET/EMERGENCY CONDITIONS

Reference System U-1.

Diesel-Driven, Emergency Water Pump (262 Hp nominal), Wellfield: This pump is available for emergency use at the production wells and will also be used in the event of the need to secure a well. The pump may be used in the annually required mechanical integrity test (MIT) of the reinjection wells. Emissions of combustion products are minimized due to its infrequent use.

Reference System U-2.

Portable H₂S Abatement System, Power Plant: This portable two-tank system is used to abate potential emissions when maintenance work is performed on systems that may contain residual H₂S gas. This system could also be used in the wellfield.

Reference System U-3.

Portable H₂S Abatement Vessel, Wellfield: This portable abatement system for H₂S is used during well maintenance operations. This system could also be used in the power plant.

Reference System U-4.

Emergency Steam Release Facility (ESRF): This system, including associated tanks and equipment, is designed to handle emergency situations such as a problem with the electrical transmission line(s) out of the power plant, upset of the geothermal fluid injection system, or if the pressure in the steam line exceeds the set points. The ESRF is used for upset conditions to prevent a release of unabated H₂S to the atmosphere.

Reference System U-5.

Turbine/Generator Modules - Steam System PSE (rupture disk) & PSV (pressure safety valve) (2 per module): During normal power plant operations, no H₂S emissions from PSEs and PSVs will occur. It is only during an upset, abnormal, or emergency condition that a potential for emissions would exist.

Reference System U-6.

Turbine/Generator Modules - Pentane System PSE & PSV: During normal power plant operations, no pentane emissions from PSEs and PSVs will occur. It is only during an upset, abnormal, or emergency condition that a potential for emissions exists.

Reference System U-7.

Injection Wells PSE & PSV's (KS-1A, KS-3, KS-11 & KS-13) Emissions of H₂S gas would occur only if an upset, abnormal, or emergency condition exists.

Reference System U-8.

Production Wells PSEs and PSVs (KS-4, KS-5, KS-6, KS-9, KS-10 KS-14 and KS-15): This serves as a secondary safety system that would activate only in the event of an upset, abnormal, or emergency condition where the steam system causes an overpressure in combination with a malfunction of the ESRF.

Reference System U-9.

Moisture Primary and Secondary Flash Separators PSE & PSV's (3 units): This system will not have an emission of H₂S gas during normal operation. Emissions of H₂S gas would occur only if an upset, abnormal, or emergency condition exists. This serves as a secondary safety system protection for the separator vessel.